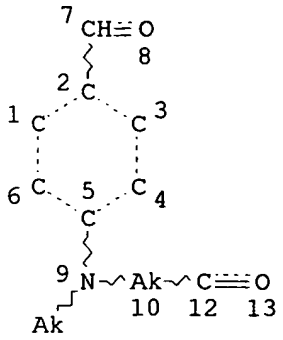
part 1 cla... 29

Considered 03/04/03 MEC

```
=> d que
L5                STR
```

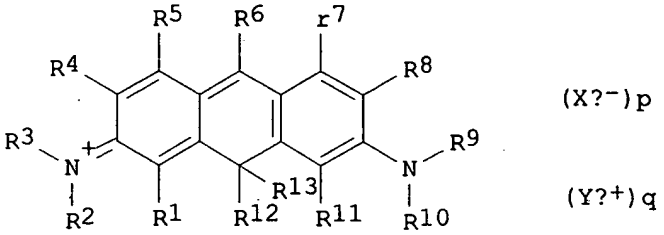



```
NODE ATTRIBUTES:
CONNECT IS E2  RC AT  10
CONNECT IS E1  RC AT  11
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC   1
NUMBER OF NODES IS  13

STEREO ATTRIBUTES: NONE
L10       563947 SEA FILE=REGISTRY ABB=ON  PLU=ON  46.150.18/RID AND N/ELS AND
                 O>1 AND NC=1 AND NR=1 NOT PMS/CI
L12           30 SEA FILE=REGISTRY SUB=L10 SSS FUL L5
L14           13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L12 AND (SUBSTRATE OR SOLID
                 OR SUPPORT OR COVALINK OR DNA BIND OR GLASS OR POYLSTYR? OR
                 MICROARRAY OR MICRO ARRAY OR IMMOBILIZ?)

=> d ibib abs hitstr l14 1-13

L14  ANSWER 1 OF 13  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2003:58374  HCAPLUS
DOCUMENT NUMBER:          138:129079
TITLE:                    Fast-writable and precision-writable high-capacity
                          optical storage media
INVENTOR(S):              Lehmann, Urs; Aeschlimann, Peter; Sutter, Peter;
                          Schmidhalter, Beat; Budry, Jean-Luc; Spahni, Heinz
PATENT ASSIGNEE(S):       Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE:                   PCT Int. Appl., 83 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ----------------  ----  --------      ---------------  --------
     WO 2003007296      A1   20030123      WO 2002-EP7434   20020704
```

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: CH 2001-1297 A 20010713
CH 2001-1516 A 20010817

GI



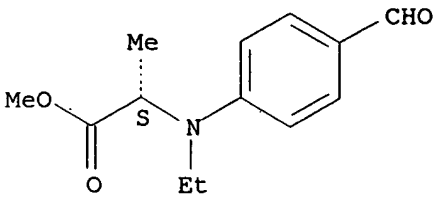
I

AB The invention relates to an optical recording medium, comprising a **substrate** and a recording layer, wherein the recording layer comprises a compd. of I (R1-13 = H, C1-24 alkyl, C2-24 alkenyl, alkynyl, C3-24 cycloalkyl, alkenyl, C7-24 aralkyl, aryl, C4-12 heteroaryl, etc.; Xm- = inorg., org., organometallic anion; Yn+ = proton or a metal, ammonium or phosphonium cation; m, n = 1-5; p, q = 0.2-6). Generally the optical recording medium according to the invention addnl. comprises a reflecting layer. The recording media according to the invention exhibit high sensitivity and good playback characteristics, esp. at high recording and playback speeds. The light stability is also excellent.

IT **489437-97-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(fast-writable and precision-writable high-capacity optical storage media)

RN 489437-97-0 HCAPLUS
CN L-Alanine, N-ethyl-N-(4-formylphenyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:669731 HCAPLUS
DOCUMENT NUMBER: 137:202707
TITLE: A process for producing uniform multilayer second order nonlinear optical polymeric thin polar films
INVENTOR(S): Roberts, M. Joe; Lindsay, Geoff A.; Wynne, Kenneth J.; Chafin, Andrew P.; Stenger-Smith, John D.; Zarras, Peter; Yee, Rena Y.; Holloins, Richard A.
PATENT ASSIGNEE(S): The United States of America as Represented by the Seceretary of the Navy, USA
SOURCE: Statutory Invent. Regist., 13 pp.
CODEN: SRXXEV
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

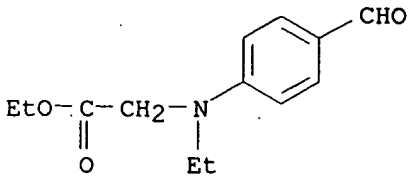
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2046	H1	20020903	US 1997-956017	19971022

PRIORITY APPLN. INFO.: US 1997-956017 19971022

AB The title films incorporate aligned non-centrosym. chromophores each having an electron donor end and an electron acceptor end, and the title process, i.e., alternating polyelectrolyte deposition process, comprises steps of: (1) dipping a **substrate** (T), e.g., a **glass** slide, into a first aq. soln. (S1) contg. an NLO-active cationic polymer (A) and removing T from S1 after designed time, (2) cleaning and drying T, (3) dipping the dried T into a second aq. soln. (S2) contg. an anionic polymer (B) and removing T from S2, (4) cleaning and drying T again, (a) repeating the steps 1-4 so that a predetd. plurality of alternating polycation and polyanion layers are built up uniformly on the surface of T. One example of A was prepd. by reacting poly(epichlorohydrin) with 4-picoline and 4-(N-ethyl-N-Et acetalyl)aminobenzaldehyde substantially, and one example of B was poly(sodium 4-styrenesulfonate).

IT **219807-88-2DP**, reaction product with poly(epichlorohydrin) 4-picoline derivs.
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(fabrication of uniform multilayer second order nonlinear optical polymeric thin polar films)

RN 219807-88-2 HCAPLUS
CN Glycine, N-ethyl-N-(4-formylphenyl)-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:315405 HCAPLUS
DOCUMENT NUMBER: 136:321706
TITLE: Method of assaying pyrrole-containing biological compounds
INVENTOR(S): Brady, Jeffrey D.; Robins, Simon P.
PATENT ASSIGNEE(S): UK
SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U. S. Ser. No. 679,141.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

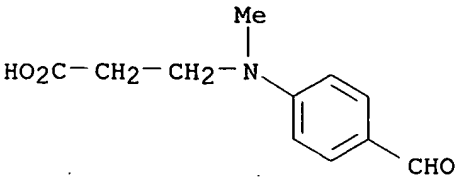
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002048779	A1	20020425	US 2001-970328	20011003

PRIORITY APPLN. INFO.: US 2000-679141 A2 20001003
OTHER SOURCE(S): MARPAT 136:321706

this applicn

AB This invention concerns a method of assaying pyrrole-contg. biol. compds. and chem. compns. that can be used in the method. The method involves contacting a biol. compd. with one of: (a) a bound or bind-able derivatizing agent which forms a reaction product with the biol. compd., followed by exposure to a detectable mol. which forms a complex with the reaction product; or (b) a derivatizing agent which forms a reaction product with the biol. compd., followed by exposure to a bound binding agent specific to the biol. compd. in the reaction product; or (c) a binding agent specific to the biol. compd., followed by exposure to a derivatizing agent which forms a reaction product with the biol. compd., and detg. the amt. of bound biol. compd. There is also provided a method of prepg. an antigen.

IT **27425-56-5P**, .beta.-Alanine, N-(4-formylphenyl)-N-methyl-
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(method of assaying pyrrole-contg. biol. compds.)
RN 27425-56-5 HCAPLUS
CN .beta.-Alanine, N-(4-formylphenyl)-N-methyl- (9CI) (CA INDEX NAME)



L14 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:276274 HCAPLUS
DOCUMENT NUMBER: 136:275711
TITLE: Method of assaying pyrrole-containing biological compounds
INVENTOR(S): Brady, Jeffrey D.; Robins, Simon P.
PATENT ASSIGNEE(S): Rowett Research Institute, UK
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002029409	A2	20020411	WO 2001-GB4377	20011002
WO 2002029409	A3	20020801		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2001093964	A5	20020415	AU 2001-93964	20011002
PRIORITY APPLN. INFO.:			US 2000-679141 A	20001003
			WO 2001-GB4377 W	20011002

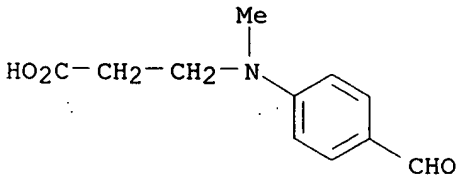
parent

OTHER SOURCE(S): MARPAT 136:275711

AB The invention concerns a method of assaying pyrrole-contg. biol. compds. and chem. compns. that can be used in the method. The method involves contacting a biol. compd. with one of: (a) a bound or bind-able derivatizing agent which forms a reaction product with the biol. compd., followed by exposure to a detectable mol. which forms a complex with the reaction product; or (b) a derivatizing agent which forms a reaction product with the biol. compd., followed by exposure to a bound binding agent specific to the biol. compd. in the reaction product; or (c) a binding agent specific to the biol. compd., followed by exposure to a derivatizing agent which forms a reaction product with the biol. compd., and detg. the amt. of bound biol. compd. There is also provided a method of prepg. an antigen.

IT **27425-56-5P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(method of assaying pyrrole-contg. biol. compds.)
RN 27425-56-5 HCAPLUS

CN .beta.-Alanine, N-(4-formylphenyl)-N-methyl- (9CI) (CA INDEX NAME)



L14 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:829374 HCAPLUS
DOCUMENT NUMBER: 134:23432
TITLE: Silver halide light sensitive emulsion layer having enhanced photographic sensitivity
INVENTOR(S): Farid, Samir Y.; Gould, Ian R.; Godleski, Stephen A.; Lenhard, Jerome R.; Muenter, Annabel A.; Zielinski, Paul A.
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: U.S., 52 pp., Cont.-in-part of U.S. Ser. No. 900,694, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

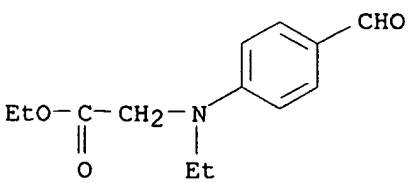
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6153371	A	20001128	US 1998-118552	19980717
JP 11102044	A2	19990413	JP 1998-211019	19980727

PRIORITY APPLN. INFO.: US 1997-900694 B2 19970725
OTHER SOURCE(S): MARPAT 134:23432

AB This invention comprises a photog. element comprising a **support** and at least one silver halide emulsion layer in which the silver halide is sensitized with a compd. Q-XY(Q = atoms forming chromophore conjugated with XY; X = electron donor group; and Y = leaving group but H). Preferably, the radical X.cntdot. has an oxidn. potential <-0.7 V.

IT **219807-88-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(silver halide light sensitive emulsion layer having enhanced photog. sensitivity)

RN 219807-88-2 HCAPLUS
CN Glycine, N-ethyl-N-(4-formylphenyl)-, ethyl ester (9CI) (CA INDEX NAME)

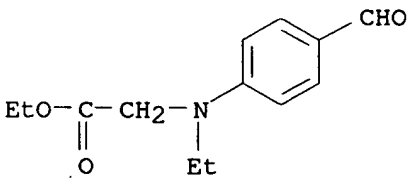


REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

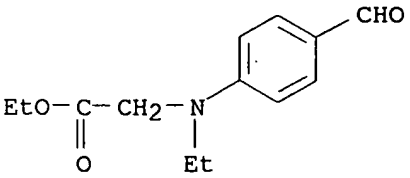
L14 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:168177 HCAPLUS
DOCUMENT NUMBER: 130:312191
TITLE: Ordered Films by Alternating Polyelectrolyte Deposition of Cationic Side Chain and Anionic Main Chain Chromophoric Polymers
AUTHOR(S): Lindsay, G. A.; Roberts, M. J.; Chafin, A. P.; Hollins, R. A.; Merwin, L. H.; Stenger-Smith, J. D.; Yee, R. Y.; Zarras, P.; Wynne, K. J.
CORPORATE SOURCE: U. S. Navy, China Lake, CA, 93555, USA
SOURCE: Chemistry of Materials (1999), 11(4), 924-929
CODEN: CMATEX; ISSN: 0897-4756
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Using the method of aq. soln. alternating polyelectrolyte deposition (APD), second-order nonlinear optical (NLO) polymer films were prepd., in which both polymers are NLO-active. Films were prepd. by alternately coating a **solid substrate** with an NLO-active side chain polycation and an NLO-active main chain polyanion. This polyanion comprises .alpha.-cinnamoyl chromophores in the syndioregic configuration (an accordion polymer). The polycation was derived from poly(epichlorohydrin) that was completely substituted with a stilbazolium side chain. The films were transparent and had no texture when obsd. by polarized microscopy. The increase in intensity of the second harmonic (SH) signal generated in the films was quadratic with each mol. layer to 20 layers; beyond that, the SH signal intensity satd. as more layers were added.

IT **219807-88-2DP**, reaction products with picoline-modified poly(epichlorohydrin)
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(cationic NLO polymer; prepn. and alternating deposition of cationic side chain and anionic main chain chromophoric NLO polyelectrolytes)
RN 219807-88-2 HCAPLUS
CN Glycine, N-ethyl-N-(4-formylphenyl)-, ethyl ester (9CI) (CA INDEX NAME)



IT **219807-88-2P**, Ethyl N-Ethyl-N-(4-formylphenyl)glycine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and alternating deposition of cationic side chain and anionic main chain chromophoric NLO polyelectrolytes)
RN 219807-88-2 HCAPLUS
CN Glycine, N-ethyl-N-(4-formylphenyl)-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

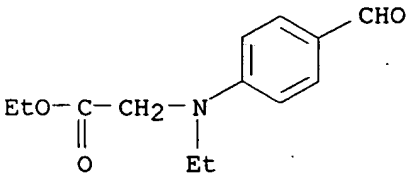
L14 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:90478 HCAPLUS
DOCUMENT NUMBER: 130:131715
TITLE: Silver halide photographic emulsion layer having enhanced sensitivity
INVENTOR(S): Farid, Samir Yacoub; Gould, Ian Robert; Godleski, Stephen A.; Lenhard, Jerome Robert; Muenter, Annabel Adams; Zielinski, Paul A.
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: Eur. Pat. Appl., 84 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 893732	A1	19990127	EP 1998-202340	19980713
EP 893732	B1	20030122		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11102044	A2	19990413	JP 1998-211019	19980727

PRIORITY APPLN. INFO.: US 1997-900694 A 19970725
OTHER SOURCE(S): MARPAT 130:131715

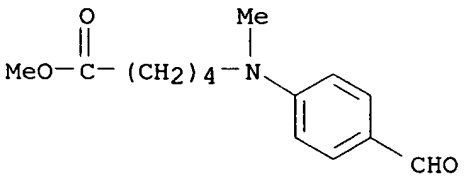
AB A photog. element comprises a **support** and at least one silver halide emulsion layer in which the silver halide is sensitized with a compd. of the formula QXY wherein Q represents the atoms necessary to form a chromophore comprising an amidinium, a carboxyl, or dipolar-amidic chromophoric system when conjugated with XY and XY is a fragmentable electron donor moiety in which X is an electron donor group and Y is a leaving group other than hydrogen, wherein XY has an oxidn. potential between 0 and about 1.4 V and the oxidized form of XY undergoes a bond cleavage reaction to give the radical X.cntdot. and the leaving fragment Y. In a preferred embodiment of the invention, the radical X.cntdot. has an oxidn. potential <-0.7V.

IT **219807-88-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. and reaction in prepg. photog. sensitizer)
RN 219807-88-2 HCAPLUS
CN Glycine, N-ethyl-N-(4-formylphenyl)-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1989:7795 HCAPLUS
DOCUMENT NUMBER: 110:7795
TITLE: A promising material for nonlinear optics: observation of second harmonic generation from [N-(4-carboxypentyl)-N-methylamino]-4'-nitrostilbene-coated **substrates**
AUTHOR(S): Barton, John W.; Buhaenko, Michael; Moyle, Brian; Ratcliffe, Norman M.
CORPORATE SOURCE: Sch. Chem., Univ. Bristol, Bristol, BS8 1TS, UK
SOURCE: Journal of the Chemical Society, Chemical Communications (1988), (7), 488-9
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:7795
AB **Glass** coated with p-O2NC6H4CH:CHC6H4[NMe(CH2)4CO2H]-p (prepd. in 4 steps from p-O2NC6H4Me) by the Langmuir-Blodgett technique gave a noncentrosym. material exhibiting 2nd harmonic generation, 1.06 to 0.53 .mu.m.
IT **117846-69-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and Wadsworth-Emmons reaction of, with [(diethoxyphosphoryl)methyl]nitrobenzene)
RN 117846-69-2 HCAPLUS
CN Pentanoic acid, 5-[(4-formylphenyl)methylamino]-, methyl ester (9CI) (CA INDEX NAME)



L14 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1985:195053 HCAPLUS
DOCUMENT NUMBER: 102:195053
TITLE: Photographic, photosensitive silver halide material
INVENTOR(S): Inoue, Nobuaki; Saeki, Naomi; Kojima, Tetsuro; Ikeda, Tadashi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd. , Japan

SOURCE: Ger. Offen., 44 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3406246	A1	19841018	DE 1984-3406246	19840221
JP 59154439	A2	19840903	JP 1983-27320	19830221
JP 04033021	B4	19920601		
JP 60064346	A2	19850412	JP 1983-173675	19830920

PRIORITY APPLN. INFO.: JP 1983-27320 19830221
JP 1983-173675 19830920

GI

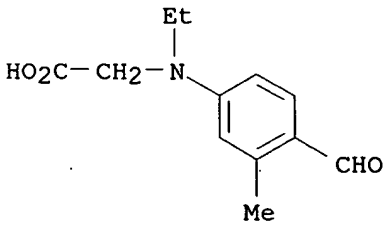
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Dyes of the general formula I (R = C1-6 alkyl or alkoxy; R1,R2 = H, halogen, OH, CO2H, or their salts, SO3H or its salts, C1-6 alkyl, or alkoxy; R3,R4 = C1-6 alkyl; R5 = C1-6 alkyl or alkoxy; R6 = H, halogen, C1-6 alkyl, or alkoxy), which have an absorption max. at 470-520 nm, are used in antihalation and filter layers of photog. materials. During the prepn. and storage of the photog. materials, these dyes show little or no decompn. and have essentially no adverse effect on the inherent color sensitivity of the Ag halide grains. Thus, a gelatin-Ag(Br,Cl) emulsion (Br 5 mol.%; av. grain size 0.23 .mu.m) contg. NH4RhCl6 2 .times. 10-4 mol/mol Ag was coated at 4 g Ag/m2 on a cellulose triacetate **support** and then coated with a gelatin protective layer contg. II 90 mg/m2. A portion of the resultant material was sensitometrically exposed and developed to show a relative sensitivity of 93, a residual d. of 0.01, and excellent resistance to safety light vs. 63, 0.01, and excellent resistance to safety light for a control contg. III.

IT **94474-21-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylsulfophenylpyrazolone)

RN 94474-21-2 HCAPLUS

CN Glycine, N-ethyl-N-(4-formyl-3-methylphenyl)- (9CI) (CA INDEX NAME)



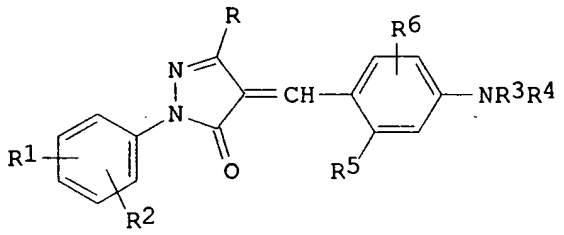
L14 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1985:70113 HCAPLUS

DOCUMENT NUMBER: 102:70113
TITLE: Direct-reversal silver halide photographic photosensitive materials
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

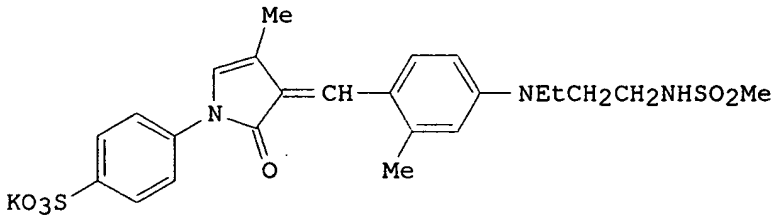
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59154439	A2	19840903	JP 1983-27320	19830221
JP 04033021	B4	19920601		
DE 3406246	A1	19841018	DE 1984-3406246	19840221
GB 2138961	A1	19841031	GB 1984-4504	19840221
GB 2138961	B2	19860924		
US 4756995	A	19880712	US 1985-800359	19851121

PRIORITY APPLN. INFO.: JP 1983-27320 19830221
JP 1983-173675 19830920
US 1984-581751 19840221

OTHER SOURCE(S): CASREACT 102:70113
GI



I



II

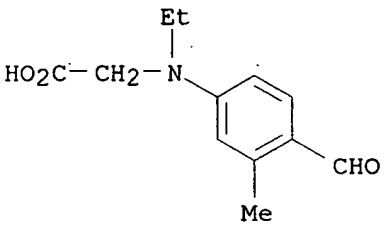
AB Direct-reversal Ag halide photog. photosensitive materials contain .gtoreq.1 dye of the formula I (R = C1-6 alkyl, C1-6 alkoxy; R1, R2 = H, halo, C1-6 alkyl, C1-6 alkoxy, OH, CO2M, SO3M; .gtoreq.1 of R1 and R2 is CO2M or SO3M; R3, R4 = C1-6 alkyl; R5 = C1-6 alkyl, C1-6 alkoxy; R6 = H, halo, C1-6 alkyl, C1-6 alkoxy; M = H, cation) having an absorption max. at 470-520 nm. The photog. materials can be handled easily under visible safelight (.gtoreq.450 nm) conditions. Thus, a photog. film **support** was coated with a direct-reversal AgBr emulsion and then coated with a gelatin protective layer contg. II (.lambda.max = 505 nm) to give a direct-reversal film, which showed very little decrease in the optical d. of images even after the film was handled under safelight

conditions for a extended period of time.

IT **94474-21-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methyl(sulfophenyl)pyrazolone)

RN 94474-21-2 HCAPLUS

CN Glycine, N-ethyl-N-(4-formyl-3-methylphenyl)- (9CI) (CA INDEX NAME)



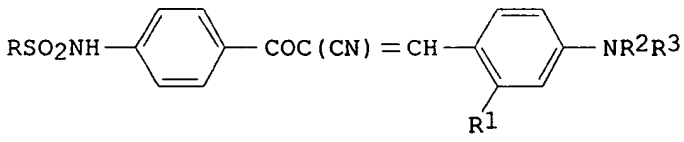
L14 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1984:112182 HCAPLUS
DOCUMENT NUMBER: 100:112182
TITLE: Photographic materials containing yellow filter dyes
INVENTOR(S): Krueger, Spencer M.; Brown, James W., III
PATENT ASSIGNEE(S): Eastman Kodak Co., USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4420555	A	19831213	US 1982-399405	19820719

PRIORITY APPLN. INFO.: US 1982-399405 19820719

GI

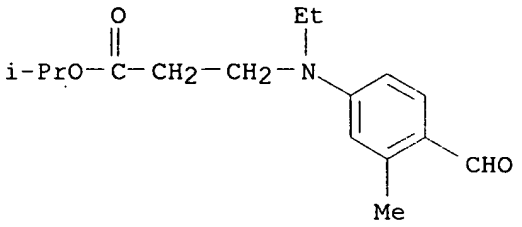


I

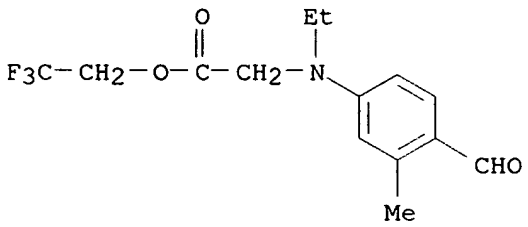
AB Photog. yellow filter dye which is easily bleached during processing steps comprises I (R = C1-3 alkyl; R1 = H, C1-3 alkyl; R2 and R3 = individually C1-3 alkyl, at least 1 of which is terminated with R4OCO or R4CO2 where R4 = C1-3 alkyl, C1-3 fluoroalkyl). Thus, a photog. element was prepd. contg. a **support**, a green- and red-sensitive Ag halide emulsion layer, yellow filter dye layer, and blue-sensitive Ag halide emulsion layer. The filter layer was composed of a dye I (R = Et,; R1 = Me; R3,R4 = Me2CHOCOCH2) dispersed in a polymeric latex contg. poly(Me acrylate-tetrahydrofurfuryl methacrylate-2-acrylamido-2-methylpropanesulfonic acid) Na salt at a ratio 1:2 wt. parts to provide a

coating of 0.16 g dye/m2. The element was imagewise exposed and processed to give .DELTA.Dmin (representing a background d. attributed to residual yellow filter dye remaining in the element) of +0.04 vs. +0.64 for a filter dye layer-free control.

IT **88881-70-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, in prepn. of photog. yellow filter dye)
RN 88881-70-3 HCAPLUS
CN .beta.-Alanine, N-ethyl-N-(4-formyl-3-methylphenyl)-, 1-methylethyl ester (9CI) (CA INDEX NAME)



IT **88881-66-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction with aminobenzoylacetonitrile, in prepn. of photog. yellow filter dye)
RN 88881-66-7 HCAPLUS
CN Glycine, N-ethyl-N-(4-formyl-3-methylphenyl)-, 2,2,2-trifluoroethyl ester (9CI) (CA INDEX NAME)

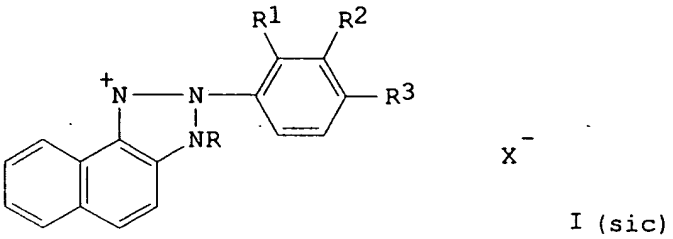


L14 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1976:172199 HCAPLUS
DOCUMENT NUMBER: 84:172199
TITLE: Light-sensitive photographic material
INVENTOR(S): Riester, Oskar; Kampfer, Helmut; Hase, Marie; Oehlschlaeger, Hans
PATENT ASSIGNEE(S): Agfa-Gevaert A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2433072	A1	19760122	DE 1974-2433072	19740710

PRIORITY APPLN. INFO.: DE 1974-2433072 19740710

GI



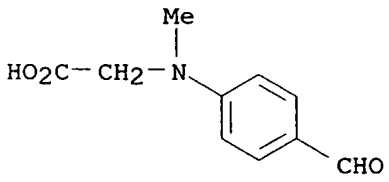
I (sic)

AB Silver-free light-sensitive photog. recording materials having high light sensitivity and giving intensely colored images are composed of a **support** coated with a layer contg. a triazolium salt (I; R = Ph, p-HOC6H4; R1 = H, NO2, MeO, or R1R2 together form a benzene ring; R2 = H or R2R1 together form a benzene ring; R3 = H, Cl, MeO, NO2, or a heterocycle nucleus; X- = anion), a carboxylic acid, such as phenylglycine, .alpha.-anilinoisobutyric acid, phenylaminodiphenylacetic acid, N-(4-formylphenyl)-N-methylaminoacetic acid, and the like, and a binder. Thus, to a soln. contg. I (R = Ph; R1, R2 = H; R3 = 5-methyl-2-benzothiazolyl) 0.4 g, MeO 10, and 10% aq. gelatin 30 ml was added a soln. contg. phenylglycine 0.5, MeOH 5, and 10% aq. gelatin 20 ml with stirring. To this soln. was then added 10% poly(vinylpyrrolidone) 10 ml and 7.5% saponin 1.5 ml and the vol. brought up to 100 ml by the addn. of water. A photog. paper was then coated with this soln., dried, and exposed behind a .sqroot.2 step wedge with a 500 W lamp at 10 cm for 3 min to give an intense red image with 15 steps.

IT **59081-62-8**
RL: USES (Uses)
(photog. silver-free emulsions contg. triazolium salts and)

RN 59081-62-8 HCAPLUS

CN Glycine, N-(4-formylphenyl)-N-methyl- (9CI) (CA INDEX NAME)



L14 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1962:429590 HCAPLUS

DOCUMENT NUMBER: 57:29590

ORIGINAL REFERENCE NO.: 57:5890d-i,5891a-b

TITLE: Variations of alkyl groups in 4-(4-dialkylaminostyryl)quinolines

AUTHOR(S): Bahner, Carl Tabb; Rives, Lydia Moore; Senter, Emma Brown; Longmire, Win.; Kinder, Harold; Bales, Dorothy Bettis; Harman, Fred; Pettyjohn, Bobby; Easley, Wm. K.; Free, Lovely; Free, Hugh
CORPORATE SOURCE: Carson-Newman Coll., Jefferson City, TN
SOURCE: J. Org. Chem. (1962), 27, 2233-6
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

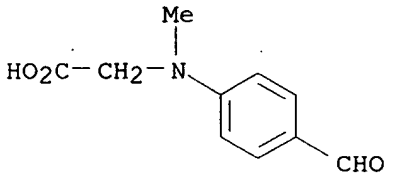
AB Dihexyl-, diheptyl-, dioctyl-, and diisopropylaniline were prepd. by alkylating PhNH2 with the appropriate halides. The dialkylaminoalkylanilines were prepd. by refluxing an amyl alc. soln. of the appropriate dialkylaminoalkyl chloride and the aniline over anhyd. Na2CO3. The aldehydes were converted into styrylquinolines by heating with lepidine-HCl. The **solid** styrylquinolines were purified by recrystn. from isohexane or mixed octanes. In addn., chromatography on silica gel or Al2O3 and purification by conversion to the salts were used. The dark red salts were prepd. by mixing coned, alc. solns. of the acid and base, cooled, filtered off, and recrystd. Lepidine picrate (3.7 g.) and 2.5 g. 4-[N,N-bis(2-chloroethyl)amino]benzaldehyde were heated 1.5 hrs. at 150-60.degree.; the **solid** in hot HCONMe2 gave 2.7 g. crude product and further recrystn. gave 1.3 g. 4-[4-[N,N-bis(2-chloroethyl)amino]styryl] quinoline, m. 241.degree.; picrate, m. 115-16.degree.. A mole-to-mole mixt. of 4-aminostyryl base and the aldehyde heated 10-20 min. without solvent (method A) or in a min. vol. of MeOH (method B), or the aldehyde added slowly with stirring at 110.degree. to a soln. of the amine in a min. of HCONMe2, then heated 15 min. at 120-30.degree. (method C). The crude product was pptd. by addn. of H2O and cryst. from octane or MeOH. The following 4-(4-aminostyryl)quinolines were obtained (alkyl group(s) on amino N, m.p., reaction time in hrs., and % yield given): Pr2, 76-7.degree., 1.5, 33; diallyl, 82.0-3.5.degree., 1.5, 13; Bu2, 81-3.degree., 2, 23; diisobutyl, 94.5. 5.0% 2, -; di-sec-Bu, 96.0-6.5.degree., 3.5, - (picrate m. 2312.degree.); di-Am, 88-9.degree., 2, 14 (picrate, m. 186.degree.); dihexyl, 23.05.5.degree., 2, - (picrate m. 185.6.degree.; maleate m. 133.degree.; fumarate m. 112.degree.); diheptyl, oil, 1, 26 (picrate m. 181.degree.; maleate m. 115.degree.); dioctyl, oil, 1.5, 31 (picrate m. 159-60.degree.; fumarate m. 104.degree.); dinonyl, oil, 4, - (maleate m. 103.degree.); didecyl, oil, 5, 50 (maleate m. 106 7.degree.); dioctadecyl, 52-3.degree., 6, 14; dibenzyl, 99-100.degree., 1, 8; N-benzyl-N-methyl, 118.0-18.5% 15.5, 8; N-methyl, 137-8.degree., 1, 26; N-Bu, 128-30.degree.m 2, -; N-hexyl, 97-8.degree., 2, 2; N-heptyl, 98-9.degree., 1, 0.4; N-octyl, 112-13.degree., 1.5, 2; N-methyl-N-(2-diethylaminoethyl), 545.degree., 3, 12 (picrate m. 22.5-6.degree.); N-ethyl-N-(2-diethylaminoethyl), 72-3% 7, 20; N-ethyl-N-(3-dimethylaminopropyl), -, 3, 10 (picrate m. 239-40.degree.); N-methyl-N-carboxymethyl, 236-7.degree., 3, 20; N-butyl-N-(2-cyanoethyl), 115-16.degree., 3, 70; N-butyl-N-(2-carboxyethyl), 181-2.degree., 0.5, 52. 4-(4-Aminostyryl)quinoline maleate m. 180.degree.; maleate m. 183.degree.; fumarate m. 200.degree.. The following 1-(4-aminostyryl)isoquinolines were obtained (alkyl group on amino N, m.p., reaction time in hrs., and % yield given): none, 196.77.7.degree., 2, 28; N-benzyl-N-ethyl, 118.0-19.5.degree., 2, 8. The following Schiff bases from 4-(4-aminostyryl)quinoline and aldehyde were obtained (aldehyde, m.p. product, method, and % yield given): 2-thiophenecarboxaldehyde, 132.degree., A, 58; 2-furfuraldehyde, 125.degree. A, 8; 3,4-diethoxylaenzaldehyde, 147.degree., A, 73; 4-dimethylamino-3-methylbenzaldehyde, 114.degree., A, 41;

4-[N,N-bis(2-chloroethyl)amino]benzaldehyde, 1601.degree., A, 41 (method B, 83). The Schiff base from 4-(4aminostyryl)pyridine and 4-[N,N-bis(2-chloroethyl)amino]-benzaldehyde was obtained in 47% yield by method A (method C, 62%), m. 179-80.degree..

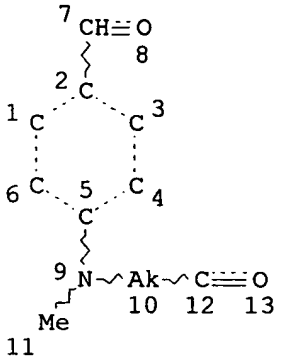
IT **59081-62-8**, Sarcosine, N-(p-formylphenyl)-
(prepn. of)

RN 59081-62-8 HCAPLUS

CN Glycine, N-(4-formylphenyl)-N-methyl- (9CI) (CA INDEX NAME)



```
=> d que
L1      5433492 SEA FILE=REGISTRY ABB=ON  PLU=ON  46.150.18/RID AND N/ELS AND
                O>1 AND NC=1 AND NR>1 NOT PMS/CI
L3              STR
```




```
NODE ATTRIBUTES:
CONNECT IS E2  RC AT   1
CONNECT IS E2  RC AT   3
CONNECT IS E2  RC AT   4
CONNECT IS E2  RC AT   6
CONNECT IS E2  RC AT  10
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC   1
NUMBER OF NODES IS  13

STEREO ATTRIBUTES: NONE
L5            3 SEA FILE=REGISTRY SUB=L1 SSS FUL L3
L9            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L5 AND (SUBSTRATE OR SOLID OR
                SUPPORT OR COVALINK OR DNA BIND OR GLASS OR POLYSTY? OR
                MICROARRAY OR ARRAY OR IMMOBIL?)


=> d ibib abs hitstr hitind 1-2

L9   ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2002:315405  HCAPLUS
DOCUMENT NUMBER:          136:321706
TITLE:                    Method of assaying pyrrole-containing biological
                          compounds
INVENTOR(S):              Brady, Jeffrey D.; Robins, Simon P.
PATENT ASSIGNEE(S):       UK
SOURCE:                   U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U. S.
                          Ser. No. 679,141.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:
```

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002048779	A1	20020425	US 2001-970328	20011003

PRIORITY APPLN. INFO.: US 2000-679141 A2 20001003
OTHER SOURCE(S): MARPAT 136:321706

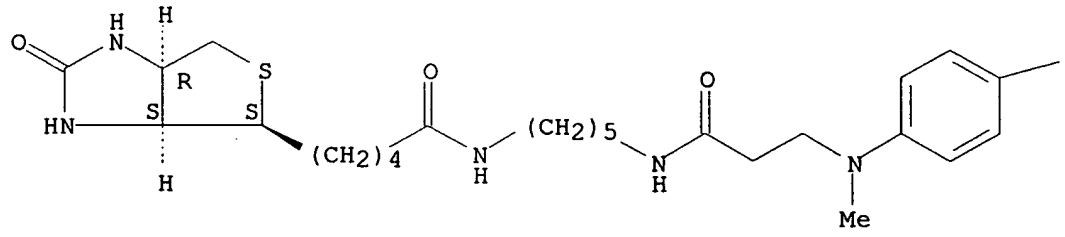
AB This invention concerns a method of assaying pyrrole-contg. biol. compds. and chem. compns. that can be used in the method. The method involves contacting a biol. compd. with one of: (a) a bound or bind-able derivatizing agent which forms a reaction product with the biol. compd., followed by exposure to a detectable mol. which forms a complex with the reaction product; or (b) a derivatizing agent which forms a reaction product with the biol. compd., followed by exposure to a bound binding agent specific to the biol. compd. in the reaction product; or (c) a binding agent specific to the biol. compd., followed by exposure to a derivatizing agent which forms a reaction product with the biol. compd., and detg. the amt. of bound biol. compd. There is also provided a method of prepg. an antigen.

IT **359766-88-4P**, 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[5-[[3-[(4-formylphenyl)methylamino]-1-oxopropyl]amino]pentyl]hexahydro-2-oxo-, (3aS,4S,6aR)- **406679-68-3P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(method of assaying pyrrole-contg. biol. compds.)

RN 359766-88-4 HCAPLUS
CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[5-[[3-[(4-formylphenyl)methylamino]-1-oxopropyl]amino]pentyl]hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

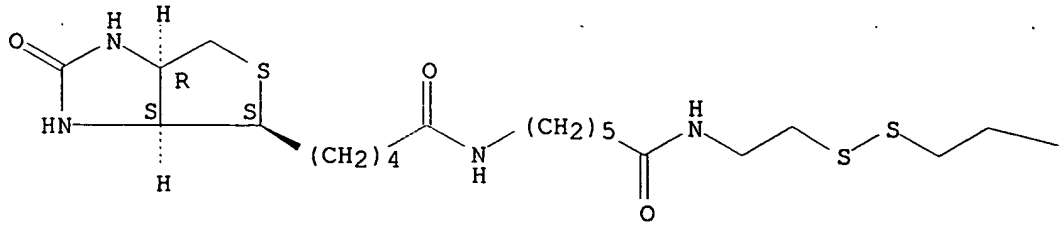


PAGE 1-B

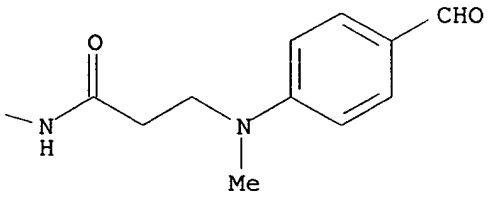
RN 406679-68-3 HCAPLUS
CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[18-(4-formylphenyl)-6,15-dioxo-10,11-dithia-7,14,18-triazanonadec-1-yl]hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IC ICM G01N033-53
ICS G01N033-537; G01N033-543
NCL 435007920
CC 9-14 (Biochemical Methods)
ST assaying pyrrole biol compd; pyrrole peptide label antibody **immobilization** bone digestion HPLC MALDI
IT Bone
Digestion, chemical
Fluorescent substances
HPLC
Immobilization, molecular
Immunoassay
Labels
Solutions
(method of assaying pyrrole-contg. biol. compds.)
IT 27425-56-5P, .beta.-Alanine, N-(4-formylphenyl)-N-methyl- **359766-88-4P**, 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[5-[[3-[(4-formylphenyl)methylamino]-1-oxopropyl]amino]pentyl]hexahydro-2-oxo-, (3aS,4S,6aR)- **406679-68-3P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(method of assaying pyrrole-contg. biol. compds.)

L9 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:276274 HCAPLUS
DOCUMENT NUMBER: 136:275711
TITLE: Method of assaying pyrrole-containing biological compounds
INVENTOR(S): Brady, Jeffrey D.; Robins, Simon P.
PATENT ASSIGNEE(S): Rowett Research Institute, UK
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002029409	A2	20020411	WO 2001-GB4377	20011002
WO 2002029409	A3	20020801		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2001093964	A5	20020415	AU 2001-93964	20011002
PRIORITY APPLN. INFO.:			US 2000-679141 A	20001003
			WO 2001-GB4377 W	20011002

OTHER SOURCE(S): MARPAT 136:275711

AB The invention concerns a method of assaying pyrrole-contg. biol. compds. and chem. compns. that can be used in the method. The method involves contacting a biol. compd. with one of: (a) a bound or bind-able derivatizing agent which forms a reaction product with the biol. compd., followed by exposure to a detectable mol. which forms a complex with the reaction product; or (b) a derivatizing agent which forms a reaction product with the biol. compd., followed by exposure to a bound binding agent specific to the biol. compd. in the reaction product; or (c) a binding agent specific to the biol. compd., followed by exposure to a derivatizing agent which forms a reaction product with the biol. compd., and detg. the amt. of bound biol. compd. There is also provided a method of prepg. an antigen.

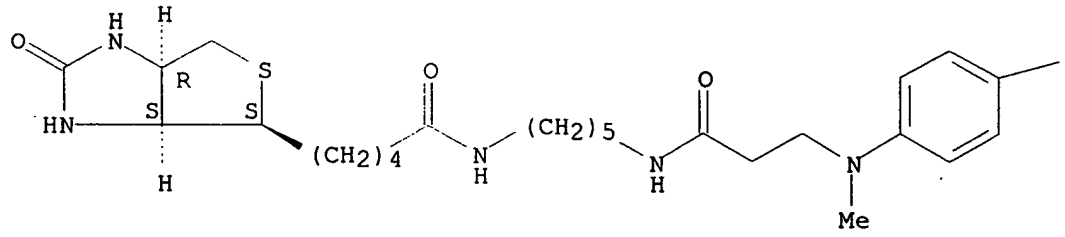
IT **359766-88-4P 406679-68-3P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(method of assaying pyrrole-contg. biol. compds.)

RN 359766-88-4 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[5-[[3-[(4-formylphenyl)methylamino]-1-oxopropyl]amino]pentyl]hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



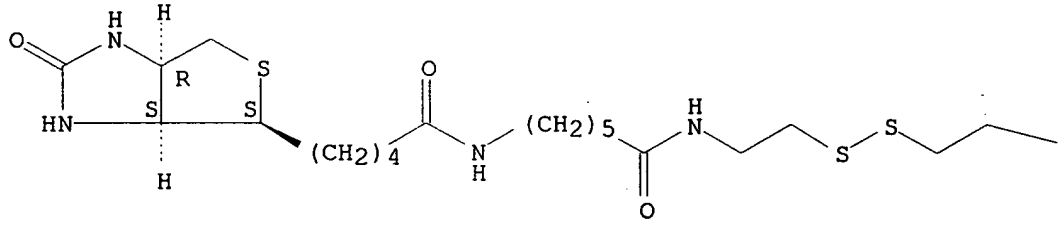
PAGE 1-B

—CHO

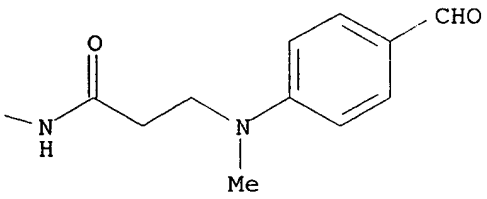
RN 406679-68-3 HCAPLUS
CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[18-(4-formylphenyl)-6,15-dioxo-10,11-dithia-7,14,18-triazanonadec-1-yl]hexahydro-2-oxo-, (3aS,4S,6aR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



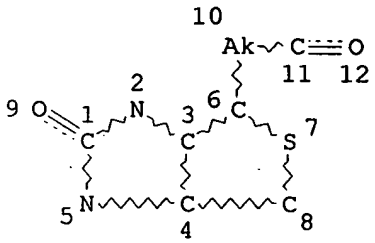
PAGE 1-B



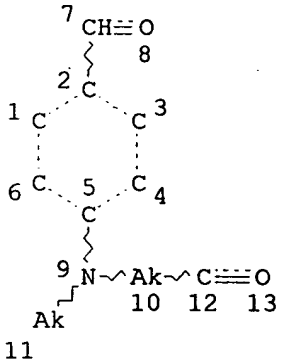
IC ICM G01N033-53
CC 9-14 (Biochemical Methods)
ST pyrrole peptide label antibody **immobilization** bone digestion HPLC MALDI
IT Bone
Digestion, chemical
Fluorescent substances
HPLC
Immobilization, molecular
Immunoassay
Labels
Solutions
(method of assaying pyrrole-contg. biol. compds.)
IT 27425-56-5P **359766-88-4P 406679-68-3P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(method of assaying pyrrole-contg. biol. compds.)

Part 2 chai. 33


```
=> d que
L4                STR
```




```
NODE ATTRIBUTES:
CONNECT IS E2  RC AT   2
CONNECT IS E2  RC AT   5
CONNECT IS E2  RC AT  10
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  12

STEREO ATTRIBUTES: NONE
L5                STR
```




```
NODE ATTRIBUTES:
CONNECT IS E2  RC AT  10
CONNECT IS E1  RC AT  11
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC   1
NUMBER OF NODES IS  13

STEREO ATTRIBUTES: NONE
L7            2 SEA FILE=REGISTRY SSS FUL L4 AND L5
L8            3 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7

=> d ibib abs hitstr 18 1-3
```

L8 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:315405 HCAPLUS
DOCUMENT NUMBER: 136:321706
TITLE: Method of assaying pyrrole-containing biological compounds
INVENTOR(S): Brady, Jeffrey D.; Robins, Simon P.
PATENT ASSIGNEE(S): UK
SOURCE: U.S. Pat. Appl. Publ., 24 pp., Cont.-in-part of U. S. Ser. No. 679,141.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002048779	A1	20020425	US 2001-970328	20011003

PRIORITY APPLN. INFO.: US 2000-679141 A2 20001003
OTHER SOURCE(S): MARPAT 136:321706

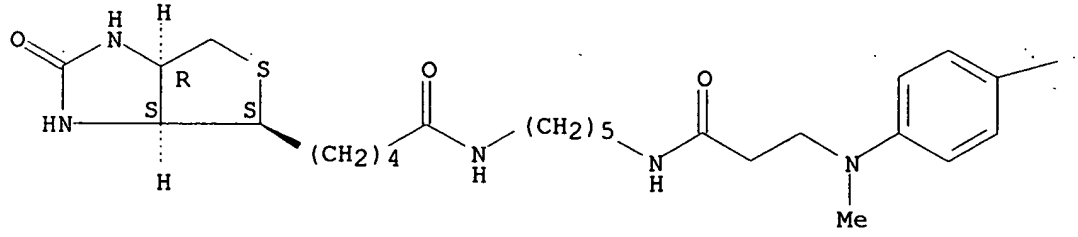
AB This invention concerns a method of assaying pyrrole-contg. biol. compds. and chem. compns. that can be used in the method. The method involves contacting a biol. compd. with one of: (a) a bound or bind-able derivatizing agent which forms a reaction product with the biol. compd., followed by exposure to a detectable mol. which forms a complex with the reaction product; or (b) a derivatizing agent which forms a reaction product with the biol. compd., followed by exposure to a bound binding agent specific to the biol. compd. in the reaction product; or (c) a binding agent specific to the biol. compd., followed by exposure to a derivatizing agent which forms a reaction product with the biol. compd., and detg. the amt. of bound biol. compd. There is also provided a method of prepg. an antigen.

IT **359766-88-4P**, 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[5-[[3-[(4-formylphenyl)methylamino]-1-oxopropyl]amino]pentyl]hexahydro-2-oxo-, (3aS,4S,6aR)- **406679-68-3P**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(method of assaying pyrrole-contg. biol. compds.)

RN 359766-88-4 HCAPLUS
CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[5-[[3-[(4-formylphenyl)methylamino]-1-oxopropyl]amino]pentyl]hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



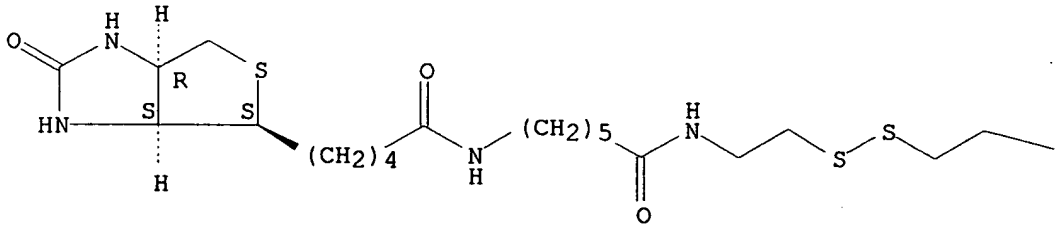
PAGE 1-B

—CHO

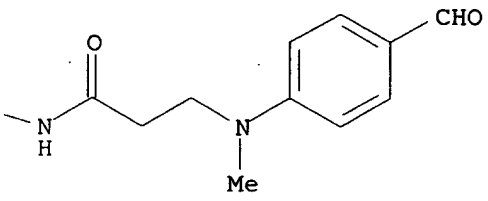
RN 406679-68-3 HCAPLUS
CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[18-(4-formylphenyl)-6,15-dioxo-10,11-dithia-7,14,18-triazanonadec-1-yl]hexahydro-2-oxo-, (3aS,4S,6aR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L8 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:276274 HCAPLUS
DOCUMENT NUMBER: 136:275711
TITLE: Method of assaying pyrrole-containing biological compounds
INVENTOR(S): [redacted] Jeffrey D.; Robins, Simon P.
PATENT ASSIGNEE(S): Rowett Research Institute, UK
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

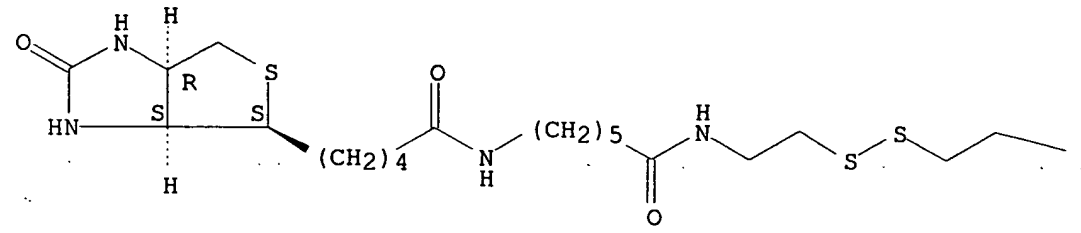
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002029409	A2	20020411	WO 2001-GB4377	20011002
WO 2002029409	A3	20020801		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

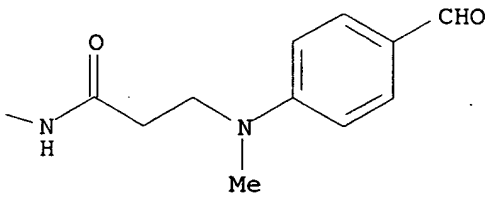
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



L8 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:429765 HCAPLUS
DOCUMENT NUMBER: 135:238201
TITLE: Structural characterization of pyrrolic cross-links in collagen using a biotinylated Ehrlich's reagent
AUTHOR(S): Brady, Jeffrey D.; Robins, Simon P.
CORPORATE SOURCE: Rowett Research Institute, Aberdeen, AB21 9SB, UK
SOURCE: Journal of Biological Chemistry (2001), 276(22), 18812-18818
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:238201

AB The structures of pyrrolic forms of cross-links in collagen have been confirmed by reacting collagen peptides with a biotinylated Ehrlich's reagent. This reagent was synthesized by converting the cyano group of N-methyl-N-cyanoethyl-4-aminobenzaldehyde to a carboxylic acid, followed by conjugation with biotin pentylamine. Derivatization of peptides from bone collagen both stabilized the pyrroles and facilitated selective isolation of the pyrrole-contg. peptides using a monomeric avidin column. Reactivity of the biotinylated reagent with collagen peptides was similar to that of the std. Ehrlich reagent, but heat denaturation of the tissue before enzyme digestion resulted in the loss of about 50% of the pyrrole cross-links. Identification of a series of peptides by mass spectrometry confirmed the presence of derivatized pyrrole structures combined with between 1 and 16 amino acid residues. Almost all of the pyrrole-contg. peptides appeared to be derived from N-terminal telopeptide sequences, and

the nonhydroxylated (lysine-derived) form predominated over pyrrole cross-links derived from helical hydroxylysine.

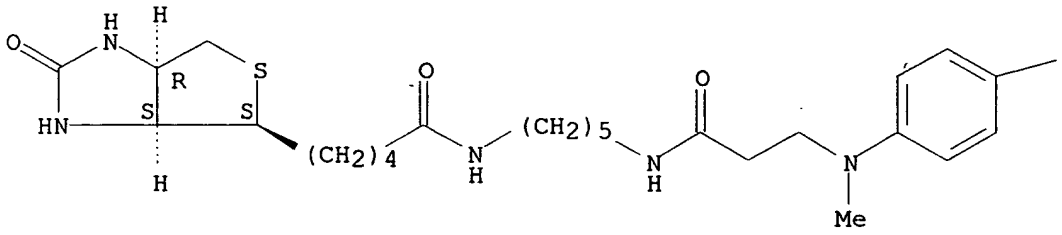
IT **359766-88-4P**
RL: MSC (Miscellaneous); NUU (Other use, unclassified); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(structural characterization of pyrrolic cross-links in collagen using a biotinylated Ehrlich's reagent)

RN 359766-88-4 HCAPLUS

CN 1H-Thieno[3,4-d]imidazole-4-pentanamide, N-[5-[[3-[(4-formylphenyl)methylamino]-1-oxopropyl]amino]pentyl]hexahydro-2-oxo-, (3aS,4S,6aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

—CHO

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT